

Attorney Docket No. PAYN-001

APPLICATION

FOR UNITED STATES LETTERS PATENT

SPECIFICATION

18 TO ALL WHOM IT MAY CONCERN:

19

20 BE IT KNOWN THAT I, Robert D. Payne, a citizen of the United States, have
21 invented a new and useful molding remover system of which the following is a
22 specification:

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2

3 **Molding Remover System**

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6 **CROSS REFERENCE TO RELATED APPLICATIONS**

7 Not applicable to this application.

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10 **STATEMENT REGARDING FEDERALLY**
11 **SPONSORED RESEARCH OR DEVELOPMENT**

12 Not applicable to this application.

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15 **BACKGROUND OF THE INVENTION**

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19 **Field of the Invention**

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21 The present invention relates generally to vehicle molding removers and more
22 specifically it relates to a molding remover system for efficiently removing door
23 molding from a vehicle without requiring removal of the door glass.

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26 **Description of the Related Art**

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28 Window molding for automobiles typically has clips that have a resilient jaw
29 member. The jaw member has a lower hook that engages the lower edge of an

1 extended member within the door frame. Figures 4 through 9 illustrate an exemplary
2 window molding attached within a door frame of an automobile. There is a need for
3 an efficient system that allows for the removal of window molding without requiring
4 removal of the door glass.

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2 **BRIEF SUMMARY OF THE INVENTION**

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4 In view of the foregoing disadvantages inherent in the known types of molding
5 removers now present in the prior art, the present invention provides a new molding
6 remover system construction wherein the same can be utilized for efficiently removing
7 door molding from a vehicle.

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9 The general purpose of the present invention, which will be described
10 subsequently in greater detail, is to provide a new molding remover system that has
11 many of the advantages of the molding removers mentioned heretofore and many novel
12 features that result in a new molding remover system which is not anticipated,
13 rendered obvious, suggested, or even implied by any of the prior art molding removers,
14 either alone or in any combination thereof.

15

16 To attain this, the present invention generally comprises a handle and a shaft
17 member extending from the handle. The shaft member has an engaging portion that
18 extends toward the handle. The engaging portion is formed for engaging a retainer clip
19 attaching a window molding to a door frame.

20

21 There has thus been outlined, rather broadly, the more important features of the
22 invention in order that the detailed description thereof may be better understood, and
23 in order that the present contribution to the art may be better appreciated. There are
24 additional features of the invention that will be described hereinafter and that will form
25 the subject matter of the claims appended hereto.

26

27 In this respect, before explaining at least one embodiment of the invention in
28 detail, it is to be understood that the invention is not limited in its application to the
29 details of construction and to the arrangements of the components set forth in the

1 following description or illustrated in the drawings. The invention is capable of other
2 embodiments and of being practiced and carried out in various ways. Also, it is to be
3 understood that the phraseology and terminology employed herein are for the purpose
4 of the description and should not be regarded as limiting.

5

6 A primary object of the present invention is to provide a molding remover
7 system that will overcome the shortcomings of the prior art devices.

8

9 A second object is to provide a molding remover system for efficiently
10 removing door molding from a vehicle without requiring removal of the door glass.

11

12 Another object is to provide a molding remover system that does not damage
13 the molding or clip structure.

14

15 An additional object is to provide a molding remover system that can be
16 utilized upon various models of automobiles.

17

18 Other objects and advantages of the present invention will become obvious to the
19 reader and it is intended that these objects and advantages are within the scope of the
20 present invention.

21

22 To the accomplishment of the above and related objects, this invention may be
23 embodied in the form illustrated in the accompanying drawings, attention being called
24 to the fact, however, that the drawings are illustrative only, and that changes may be
25 made in the specific construction illustrated and described within the scope of the
26 appended claims.

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BRIEF DESCRIPTION OF THE DRAWINGS

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4 Various other objects, features and attendant advantages of the present
5 invention will become fully appreciated as the same becomes better understood when
6 considered in conjunction with the accompanying drawings, in which like reference
7 characters designate the same or similar parts throughout the several views, and
8 wherein:

9

10 FIG. 1 is an upper perspective view of the present invention in a first position.

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12 FIG. 2 is an upper perspective view of the present invention in a second
13 position.

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15 FIG. 3 is an upper perspective view of the present invention in a third position.

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17 FIG. 4 is an end view of the present invention.

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19 FIG. 5a is a side view of the present invention being inserted between a window
20 molding and the door glass.

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22 FIG. 5b is a side view of the present invention being rotated thereby causing the
23 hook member to be removed from the door frame.

24

25 FIG. 5c is a side view of the present invention lifting the removed window
26 molding from the door frame.

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28 FIG. 6a is an upper perspective view of the present invention being inserted
29 between the door glass and the window molding.

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2 FIG. 6b is an upper perspective view of the present invention being lifted for
3 removing the window molding.
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5 FIG. 6c is an upper perspective view of the present invention being slid
6 between the door glass and the window molding.
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8 FIG. 7 is an upper perspective view of an alternative embodiment of the present
9 invention.
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11 FIG. 8 is a side view of the alternative embodiment.
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13 FIG. 9 is an end view of the alternative embodiment.
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2 **DETAILED DESCRIPTION OF THE INVENTION**

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4 *A. Overview of Invention*

5 Turning now descriptively to the drawings, in which similar reference
6 characters denote similar elements throughout the several views, FIGS. 1 through 8
7 illustrate a molding remover system 10, which comprises a handle 20 and a shaft
8 member 30 extending from the handle 20. The shaft member 30 has an engaging
9 portion 36 that extends toward the handle 20. The engaging portion 36 is formed for
10 engaging a retainer clip 18 attaching a window molding to a door frame.

11

12 *B. Handle*

13 Figures 1 through 9 illustrate an exemplary handle 20 that may be utilized with
14 the present invention. The handle 20 illustrated in Figures 1 through 6c is comprised
15 of an elongate closed structure similar to that utilized with a screwdriver that the user
16 grasps. The handle 20 illustrated in Figures 7 through 9 is comprised of an open
17 rectangular structure with a center opening for the user to extend their hand through. It
18 can be appreciated that various other structures and designs may be utilized to
19 construct the handle 20.

20

21 *C. Shaft Member*

22 A shaft member 30 extends from the handle 20 as shown in Figures 1 through 9
23 of the drawings. The shaft member 30 includes a distal portion that is angled toward
24 the handle 20 as best illustrated in Figures 2, 3 and 8 of the drawings. The distal
25 portion of the shaft member 30 includes an engaging portion 36 for selectively
26 engaging a retainer clip 18 as shown in Figures 1, 2, 3 and 7 of the drawings.

27

28 Figures 1 through 6c illustrate a first embodiment of the present invention
29 wherein the shaft member 30 is comprised of a first segment 31 extending from the

1 handle 20, a second segment 32 extending from the first segment 31 at a first angle,
2 and a third segment 34 extending from the second segment 32 at a second angle. The
3 engaging portion 36 extends from the third segment 34 at a third angle as best
4 illustrated in Figures 1 and 2 of the drawings. The first angle and the second angle
5 may be comprised of an angle greater than one hundred degrees. The third angle may
6 be comprised of an angle less than ninety degrees as best illustrated in Figures 1 and 2
7 of the drawings. The engaging portion 36 may be substantially parallel to the first
8 segment 31 and directed toward the handle 20 as shown in Figures 1 and 2 of the
9 drawings. The engaging portion 36 may be flat and tapered with a broad structure as
10 further shown in Figures 1 and 2 of the drawings.

11

12 Figures 7 through 9 of the drawings illustrate a second embodiment of the
13 present invention. The second embodiment has an extended portion 31' that extends
14 outwardly from the handle 20 as best illustrated in Figure 7 of the drawings. In the
15 alternative embodiment, the third segment 34 is approximately ninety degrees with
16 respect to the second segment 32 as best shown in Figure 7 of the drawings. Also, the
17 engaging portion 36 is approximately ninety degrees with respect to the second
18 segment 32 as best shown in Figure 7 of the drawings. The engaging portion 36
19 extends towards the handle 20 at an angle with respect to the second segment 32 as
20 shown in Figure 8 of the drawings.

21

22 **D. Operation of Invention – First Embodiment**

23 In use, the user inserts the engaging portion 36 between the molding belt 14 of
24 the window molding and the door glass 12. The user continues to insert the shaft
25 member 30 downwardly within the door of the automobile as best illustrated in Figure
26 6a of the drawings. The user then lifts the engaging portion 36 upwardly to engage a
27 retainer clip 18 attached to the window molding as shown in Figure 5a of the drawings.
28 The user then rotates the handle 20 thereby causing the engaging portion 36 to apply
29 an outward force to the retainer clip 18 thereby forcing the retainer clip 18 from the

1 upper lip of the door as shown in Figure 5b of the drawings. The user then lifts
2 upwardly upon the engaging portion 36 thereby causing the molding frame 16 to be
3 lifted from the door frame. This process continues until the window molding is
4 completely removed.

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6 ***E. Operation of Invention – Second Embodiment***

7 In use, the user inserts the engaging portion 36 between the molding belt 14 of
8 the window molding and the door glass 12. The user continues to insert the shaft
9 member 30 downwardly within the door of the automobile similar to the first
10 embodiment. The user then lifts the engaging portion 36 upwardly to engage a retainer
11 clip 18 attached to the window molding. The user continues to lift upon the engaging
12 portion 36 thereby causing the engaging portion 36 to apply an outward force to the
13 retainer clip 18 thereby forcing the retainer clip 18 from the upper lip of the door. The
14 user continues to lift upwardly upon the engaging portion 36 thereby causing the
15 molding frame 16 to be lifted from the door frame. This process continues until the
16 window molding is completely removed.

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18 As to a further discussion of the manner of usage and operation of the present
19 invention, the same should be apparent from the above description. Accordingly, no
20 further discussion relating to the manner of usage and operation will be provided.

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22 With respect to the above description then, it is to be realized that the optimum
23 dimensional relationships for the parts of the invention, to include variations in size,
24 materials, shape, form, function and manner of operation, assembly and use, are
25 deemed to be within the expertise of those skilled in the art, and all equivalent
26 structural variations and relationships to those illustrated in the drawings and
27 described in the specification are intended to be encompassed by the present invention.

28

1 Therefore, the foregoing is considered as illustrative only of the principles of
2 the invention. Further, since numerous modifications and changes will readily occur to
3 those skilled in the art, it is not desired to limit the invention to the exact construction
4 and operation shown and described, and accordingly, all suitable modifications and
5 equivalents may be resorted to, falling within the scope of the invention.